Figure 7C is a flow chart depicting one embodiment of a method in accordance with the present invention performed by one embodiment of a generator in accordance with the present invention.

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Figure 7A is a flow chart depicting one embodiment of a method 300 in accordance with the present invention performed by one embodiment of a snooper 102 in accordance with the present invention. For clarity, the method 300 is described in conjunction with the interface 24 of the island 16. Thus, it is assumed that the snooper 102 is coupled with the interface 24 of the island 16. The snooper 102 monitors the interface 24, via step 302. It is determined whether an input and/or output have been detected, via step 304. If an output is not detected, then the interface 24 is continued to be monitored, in step 302. However, if an input and/or output are detected, then the input and/or output may be provided to the checker 104, via step 306.

Figure 7B is a flow chart depicting one embodiment of a method 310 in accordance with the present invention performed by one embodiment of a checker 104 in accordance with the present invention. For clarity, the method 310 is described in conjunction with the interface 24 of the island 16. Thus, it is assumed that the checker 104 is coupled with the interface 24 of the island 16, preferably through the snooper 102. The checker 104 can, in some embodiments, generate the desired output(s) based upon the input(s), via step 312. The input(s) used in step 312 are provided by the snooper 102. However, in an alternate embodiment, the checker 104 can be provided with the desired output(s). The checker 104 checks the actual output(s) from the interface 24, and provided by the snooper 102, against the desired output(s), via step 314. Thus, the checker 104 checks the output(s) for errors in step 314. The checker 104 can then output a message indicating whether there are errors in the output, via step 316. Thus, the checker 104 checks the output(s)

from the interface 24 that are provided by the snooper 102 to determine whether the island 16 being tested is operating properly.

Figure 7C is a flow chart depicting one embodiment of a method 320 in accordance with the present invention performed by one embodiment of a generator 106 in accordance with the present invention. For clarity, the method 320 is described in conjunction with the interface 24 of the island 16. Thus, it is assumed that the generator 106 is coupled with the interface 24 of the island 16. The generator 106 is also coupled with a test case 107. The generator 106 generates input(s) for the interface 24 using instructions from the test case 107, via step 322. In a preferred embodiment, the generator 106 also introduces some randomness to the input(s) in step 322. The generator 106 may also receive output(s) from the interface 24, via step 324. The output(s) received are based upon the inputs that the generator 106 previously provided. The generator 106 may then generate new input(s), preferably using some randomization, for the interface 24, via step 326. The method 320 can thus be repeated until sufficient testing of the island 16 has been performed.

IN THE CLAIMS:

1. (Amended) A system for providing simulation of an integrated circuit during development of the integrated circuit, the integrated circuit having an island including an interface, the system comprising:

a snooper coupled with the interface for monitoring the interface and obtaining an output provided by the island during simulation;

a checker, coupled with the interface, for checking the output to determine whether the output is a desired output;

a generator coupled with the island for providing an input to the island during simulation;